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PATENTS

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June 8, 2004

via EXPRESS MAIL

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HAYNES & BOONE, LLP
901 Main Street, Ste. 3100
Dallas, TX 75202

Re: U.S. Patent Application No. 10/294,121
COMPOSITIONS OF PLANT CARBOHYDRATES AS DIETARY SUPPLEMENTS
Owned by Assignment by Mannatech, Inc.

Attn.: Responsible Attorney for above-identified patent application

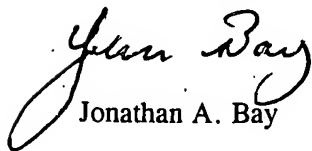
Dear Sir/Madam:

An interested party has contacted me regarding the above-identified patent application (and as more particularly identified on the attached cover sheet for U.S. Patent Application Publ. No. US 2003/0072770 (A1)).

The interested-party has further provided me instructions to transmit the accompanying packet of articles in connection with the duty of candor and good faith toward the Patent & Trademark Office (PTO) that rests on each attorney or agent who prepares or prosecutes an application to disclose to the PTO information of which they are aware and which is material to the patentability of the invention claimed in the application. Abbreviated citations of all are listed on attached Appendix.

You are invited, of course, to make and independent judgment.

Sincerely yours,


Jonathan A. Bay

JAB/jlm
enclosure(s)

APPENDIX

- J. Teas, "The Dietary Intake of Laminaria, a Brown Seaweed, and Breast Cancer Prevention"
- A. Bond et al., "Distinct Oligosaccharide Content of Rheumatoid Arthritis-Derived Immune Complexes"
- N Pugh et al., "Characterization of Aloeride, a New High-Molecular-Weight Polysaccharide from Aloe Vera with Potent Immunostimulatory Activity"
- J.R. Clamp et al., "Study of the Carbohydrate Content of Mucus Glycoproteins from Normal and Diseased Colons"
- A. Bond, et al., "The relationship between exposed galactose and N-acetylglucosamine residues on IgG in rheumatoid arthritis (RA), juvenile chronic arthritis (JCA) and Sjögren's syndrome (SS)"
- Peterson et al., "Early Manifestation of the Carbohydrate-Deficient Glycoprotein Syndrome"
- A. Djeraba et al., "In vivo macrophage activation in chickens with Acemannan , a complex carbohydrate extracted from Aloe vera"
- T. Feizi, "Significance of carbohydrate components of cell surfaces"
- K. Matsuda et al., "Inhibitory Effects of Sialic Acid- or N-Acetylglucosamine-Specific Lectins on Histamine Release Induced by Compound 48/80, Bradykinin and a Polyethylenimine in Rat Peritoneal Mast Cells"
- S. Hakomori, "Aberrant Glycosylation in Cancer Cell Membranes as Focused on Glycolipids: Overview and Perspectives"
- D. Ryan, et al., GG167 (4-Guanidino-2,4-Dideoxy-2,3-Dehydro-N-Acetylneuraminic Acid) Is a Potent Inhibitor of Influenza Virus in Ferrets"
- R. Malhotra et al., "Glycosylation changes of IgG associated with rheumatoid arthritis can activate complement via mannose-binding protein"
- A. Olszewski et al., "Plasma glucosamine and galactosamine in ischemic heart disease"
- J. Cuddihy et al., "The Presence of Total Polysaccharides in Sugar Production and Methods for Reducing Their Negative Effects"
- C. Haydu et al., "Medical Attributes of Aloe vera - The Aloe Plant"
- T. Balter, Paper Entitled: "Aloe Vera Research", comprising a compilation of abstracts of

numerous scientific papers.

G. Alton et al., "Direct utilization of mannose for mammalian glycoprotein biosynthesis"
KR Stone, "Glucosamine References"

Articles from "Inside Aloe" magazine: R. Davis, "Polysaccharide: The Magic Bullet"
R. Pelley, "The Story of Aloe Polysaccharides"

RA Dwek, "Glycobiology: 'The function of sugar in the IgG molecule'"

J. Scott, "Extracellular matrix, supramolecular organisation and shape"

N. Ercan, "Effects of Glucose, Galactose, and Lactose Ingestion on the Plasma Glucose and
Insulin Response in Persons With Non-Insulin-Dependent Diabetes Mellitus"

J. Theodosakis et al., "The Arthritis Cure"

A. Sanchez et al., "Role of sugars in human neutrophilic phagocytosis"

S.K. Seul (???) , "Fucoidan Research", comprising a compilation of abstracts of numerous
scientific papers.

M. Ghoneum, "Anti-HIV Activity in Vitro of MGN-3, an Activated Arabinoxylane from Rice
Bran"

I. Tizard et al., "The biological activities of mannans and related complex carbohydrates"

Author Unknown, "About Konnyaku" and "What's Glucomannan"

Z. Qiu et al., "Modified Aloe barbadensis Polysaccharide with Immunoregulatory Activity"

I. Tizard et al., "The biological activities of mannans and related complex carbohydrates"

M. Fukuda et al., "Molecular Glycobiology"

D. Womble et al., "Enhancement of Allo-Responsiveness of Human Lymphocytes by
Acemannan (CARRISYN™)

S.Y. Peng et al., "Decreased mortality of Norman Murine Sarcoma in mice treated with
immunomodulator, Anemannan™"

P.D. Overton et al., "The effects of dietary sugar-beet fibre and guar gum on lipid metabolism in
Wistar rats"

A. Varki, "Unusual modifications and variations of vertebrate oligosaccharides: are we missing

the flowers for the trees?"

- S. Ikegami et al., "Viscous Indigestible Polysaccharides Reduce Accumulation of Pentachlorobenzene in Rats"
- C. Leclère et al., "Role of viscous guar gums in lowering the glycemic response after a solid meal"
- A. Sampaio et al., "A Galactose-Specific Lectin from the Red Marine Alga *Ptilota Filicina*"
- CA Edwards et al., "Viscosity of food gums determined in vitro related to their hypoglycemic actions"
- P. Bouic et al., "Plant Sterols and Sterolins: A Review of Their Immune-Modulating Properties"
- P. Kidd, "The Use of Mushroom Glucans and Proteoglycans in Cancer Treatment"
- D. Womble et al., "The Impact of Acemannan on the Generation and Function of Cytotoxic T-Lymphocytes"
- H. Hara et al., "Ingestion of Guar Gum Hydrolysate, a Soluble Fiber, Increase Calcium Absorption in Totally Gastrectomized Rats"
- R. Knopp et al., "Long-Term Blood Cholesterol-Lowering Effects of a Dietary Fiber Supplement"
- J. Kahlon et al., "Inhibition of AIDS virus replication by Acemannan in vitro"
- A. Chinnah et al., "Antigen dependent adjuvant activity of a polydispersed β -(1,4)-linked acetylated mannan (acemannan)"
- J. Zavoral et al., "The hypolipidemic effect of locust bean gum food products in familial hypercholesterolemic adults and children"
- G. Ramelow et al., "Uptake of metallic ions from aqueous solution by dried lichen biomass"
- K. Landin et al., "Low blood pressure and blood glucose levels in Alzheimer's disease Evidence for a hypometabolic disorder?"
- R. Rest et al., "Mannose Inhibits the Human Neutrophil Oxidative Burst"
- G. Kelly, "Larch Arabinogalactan: Clinical Relevance of a Novel Immune-Enhancing Polysaccharide"
- A.J. Vlietinck et al., "Plant-Derived Leading Compounds for Chemotherapy of Human

Immunodeficiency Virus (HIV) Infection”



US 20030072770A1

(19) **United States**(12) **Patent Application Publication**
McAnalley et al.(10) **Pub. No.: US 2003/0072770 A1**(43) **Pub. Date: Apr. 17, 2003**(54) **COMPOSITIONS OF PLANT
CARBOHYDRATES AS DIETARY
SUPPLEMENTS**(75) **Inventors: Bill H. McAnalley, Grand Prairie, TX
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DALLAS, TX 75202 (US)(73) **Assignee: Munnatech, Inc., Coppell, TX**(21) **Appl. No.: 10/294,121**(22) **Filed: Nov. 14, 2002****Related U.S. Application Data**(62) **Division of application No. 09/242,215, filed on Feb.
8, 1999, filed as 371 of international application No.
PCT/US97/13379, filed on Aug. 4, 1997.**(60) **Provisional application No. 60/022,467, filed on Aug.
9, 1996. Provisional application No. 60/030,317, filed
on Nov. 1, 1996. Provisional application No. 60/057,
017, filed on Jul. 24, 1997.****Publication Classification**(51) **Int. Cl.⁷ A61K 35/78; A61K 31/70;
A61K 31/715; A61K 31/7012**
(52) **U.S. Cl. 424/195.18; 424/750; 424/738;
424/770; 514/23; 514/54; 514/55;
514/57; 514/59**(57) - **ABSTRACT**

Compositions of plant carbohydrates for dietary supplements and nutritional support for promotion and maintenance of good health. Defined nutritionally effective amounts of one to eleven essential saccharides, glyconutrients, are used in various inventive compositions as dietary supplements. The dietary composition herein can include phytonutrients, vitamins, minerals, herbal extracts, and other non-toxic nutrients. The glyconutritional dietary supplement herein provides essential saccharides which are the building blocks of glycoproteins. These compositions, when administered orally or topically, have been found to improve the well being of mammals suffering from a variety of disorders.